

CCTGACCGGCCGGCGGCGCCCGGGCCGGTCTCGCCCCCTCTACCGAGCGCCTCGCCGCC
 CCCTCCCCGGCCCGGTCCCTCCCCGTCTCTCTCCCCGCCCGCCGCCCGCCTCTC
 GGGGGGAGGGGCGTGGGGGCAGGGAGCCGATTTGCATGCGGCCGCCGCGGCCGCTG
 CCTGAGCCGGAGCCCGCCGCGCCGGAGCCCGCGCCCGCGCCCGCGCCCGGCCCGCG
 CGGCCCCATGCCTCTGGCGCGGCCCTCGGGGGGGCGAAGGTGAAGATCGGCTCCTAG
 GATGAGTGAAGGGGCGGCCGGTGCCTCGCCACCTGGTGCCGCTTCGGCAGCCGCCGC
 CTCAGCCGAGGAGGGCACCGCGGCGGCTGCGGCGGCGGCGGCGGCGGGCGGGGGCC
 CGGACGGCGGCGGAGAAGGGGCGGCCGAACCCCCCGGGAGTTACGCTGTAGCGACT
 GCATCGTGTGAACCGGCAGCAGACGTGGTTGTGCGTGGTGCCTCTGTTTCATCGGCTT
 CATCGGCTGGGGCTCAGCCTCATGCTGCTTAAATGGATCGTGGTAGGCTCCGTCAAG
 GAGTACGTGCCACGGACCTGGTGGACTCCAAGGGAATGGGCCAGGACCCCTTCTTCC
 TCTCAAAGCCCAGCTCTTTCCCCAAGGCTATGGAAACCACCACAACAACCACTTCTACC
 ACGTCCCCCGCCACCCCTCTGCCGGCGGCGCCGCTTCTTCCAGGACGCCTAACCGGA
 TTAGCACCCGCTTGACCACCATCACACGGGCACCCACCCGCTTCCCTGGGCAACGGGT
 TCCCATCCGGGCTAGCCCGCGCTCTACCACAGCACGGAACACTGCTGCCCTCCGACG
 GTCCTGTCCACCACGGCCCCCTTTCTTCAGTAGCAGCACGCCCGGCTCCCGACCCCGAT
 GCCAGGAGCCCCCAGTACGCAGGCGATGCCTTCTGGCCCACTGCGGCGTATGCTACC
 TCCTCCTACCTCCACGATTCCACTCCCTCCTGGACCCTGTCACCCTTTCAGGATGCTGC
 TGCCGCCTCTTCTCCTCACCTCTTCCACCTCCTCCACTACCACCACCCAGAACTA
 GCACCAGCCCCAAATTTCACTATAACATACTCCACTGAACGATCTGAGCACTTCAA
 ACCCTGTGAGACAAGGACCTGGCGTATTGTCTCAATGATGGTGAATGCTTTGTGATT
 GAGACCCTGACAGGATCCCATAAGCACTGTGCGTGCAAGGAAGGCTACCAAGGAGTC
 CGTTGTGATCAATTTCTGCCGAAAACAGACTCCATCTTATCGGATCCAACAGACCACTT
 GGGGATTGAATTCATGGAGAGTGAAGACGTTTATCAAAGGCAGGTGCTGTCAATTTCA
 TGTATCATCTTTGGAATTGTCATCGTGGGCATGTTCTGTGCAGCATTCTACTTCAAAG
 CAAGAAACAAGCTAAACAAATTCAGGAGCACCTGAAAGAGTCACAGAATGGGAAGAA
 CTACAGCCTCAAGGCATCCAGCACAAAGTCTGAGAGCTTGATGAAGAGCCATGTCCAT
 CTACAAAATTATTCAAAGGCGGATAGGCATCCTGTGACTGCGCTGGAGAAAATAATGG
 AGTCAAGTTTTTCAGCTCCCCAGTCGTTCCAGAAAGTCACTTCTCCTGACCGAGGAAG
 CCAGCCTATCAAGCACCAAGCCAGGACAAAGGAGTGGGATGTTGCATAGGAATAC
 TTTCAAGAGGGCACCAACCTCACCCGAAGTCGACTGGGTGGTATTGTAGGACCAGCA
 TATCAACAACCTGAAGAATCAAGAATTCCAGACCAGGATACGATACCTTGCCAAAGGA
 TAGAGGTCAGGAAGACTATATCCACCTGCCTATACAGCTGTGGTGTGTTGAAAGACC
 CCTGGACTTAAAGTATGTGTCCAATGGCTTAAGAACCCAAACAAATGCATCAATAAAT
 ATGCAACTGCCTTCAAGAGAGACAAACCCCTATTTAATAGCTTGGATCAAAGGACC
 TGGTGGGTATTTATCCCCAAGGGCCAATTCTGTGCCCATCATCCCGTCGATGGGTCTA
 GAAGAAACCTGCATGCAAATGCCAGGGATTTCTGACGTCAAAGCATTAAATGGTGCA
 AAAACTCCTACTCCGCTGACATTGTCAACGCGAGTATGCCAGTCAGTGATTGTCTTCTA
 GAAGAACAACAGGAAGTGAAAATATTACTAGAGACTGTGCAGGAACAGATCCGGATT
 CTGACTGATGCCAGACGGTCAGAAGACTTCGAACTGGCCAGCATGGAACTGAGGAC
 AGTGCGAGCGAAAACACAGCCTTTCTCCCCCTGAGTCCACGGCCAAATCAGAACGAG
 AGGCACAATTTGTCTTAAGAAATGAAATACAAAGAGACTCTGTGCTAACCAAGTGACT
 GGAAATGTAGGAATCTGTGCATTATATGCTTTGCTAAACAGGAAGGAGAGGAATTA
 AATACAAATTATTTATATGCATTAATTTAAGAGCATCTACTTAGAAGCC

Figure 1

TCACCGACCTAGTGGACTCCACTAGGTTCGGTGGGCACGTA CTCTTGACGGAGCCAC
CACGATCCATTTGAGAAGCATGAGGCGCGGCCCATGCCTCTGCCGCGGCCCTCGGGG
GGGCGAAGGTGAANACCGGCTCCTAGGATGAGTGAAGGGGCGGCCGCTGCCTCGCCA
CCTGGTGCCGCTTCGGCAGCCGCCGCTCGGCCGAGGAGGGCACCGCGGCGGCTGCG
GCGGCGGCAGCGGCGGGCGGGGGCCCGGACGGCGGCGGCGAAGGGGCGGCCGAGCC
CCCCCGGGAGTTACGCTGTAGCGACTGCATCGTGTGGAACCGGCAGCAGACGTGGCT
GTGCGTGGTACCTCTGTTTCATCGGCTTCATCGGCCTGGGGCTCAGCCTCATGCTTCTCA
AATGGATCGTGGTGGGCTCCGTCAAGGAGTACGTGCCACCGACCTAGTGGACTCCAA
GGGGATGGGCCAGGACCCCTTCTTCTCTCCAAGCCCAGCTCTTTCCCAAGGCCATG
GAGACCACCACCTACCACTTCCACCAGTCCCCCGCCACCCCTCCGCCGGGGGTG
CCGCTCCTCCAGGACGCCAACC GGATTAGCACTCGCCTGACCACCATCACGCGGGC
GCCACTCGCTTCCCCGGGCACCGGGTGCCATCCGGGCCAGCCCGCGCTCCACCACA
GCACGGAACACTGCGGCCCTGCGACGGTCCCGTCCACCACGGCCCCGTTCTTCAGTA
GCAGCACGCTGGGCTCCCGACCCCGGTGCCAGGAAC TCAAGTACCCAGGCAATGCC
CTCCTGGCCTACTGCGGCATACGCTACCTCCTCCTACCTTACGATTCTACTCCCTCCT
GGACCCTGTCTCCCTTTCAGGATGCTGCCTCCTCTTCTTCTCCTCTTCTCCTCCGCTA
CCACCACCACACCAGAACTAGCACCAGCCCCAAATTTCATACGACGACATATTCCAC
AGAGCGATCCGAGCACTTCAAACCCTGCCGAGACAAGGACCTTGCATACTGTCTCAAT
GATGGCGAGTGCTTTGTGATCGAAACCCTGACCGGATCCCATAAACACTGTCTGGTGCA
AAGAAGGCTACCAAGGAGTCCGTTGTGATCAATTTCTGCCGAAAAC TGAATCCATCTT
ATCGGATCCAACAGACCACTTGGGGATTGAATTCATGGAGAGTGAAGAAGTTTATCAA
AGGCAGGTGCTGTCAATTTCATGTATCATCTTTGGAATTGTCATCGTGGGCATGTTCTG
TGCAGCATTCTACTTCAAAAGCAAGAAACAAGCTAAACAAATCCAAGAGCAGCTGAA
AGTGCCACAAAATGGTAAAAGCTACAGTCTCAAAGCATCCAGCACAATGGCAAAGTC
AGAGAACTTGGTGAAGAGCCATGTCCAGCTGCAAAATTATTCAAAGGTGGAAAGGCA
TCCTGTGACTGCATTGGAGAAAATGATGGAGTCAAGTTTTGTGCGCCCCCAGTCATTC
CCTGAGGTCCCTTCTCCTGACAGAGGAAGCCAGTCTGTCAAACACCACAGGAGTCTAT
CCTCTTGCTGCAGCCCAGGGCAAAGAAGTGGCATGCTCCATAGGAATGCCTTCAGAAG
GACACCCCGTCACCCCGAAGTAGGCTAGGTGGAATTGTGGGACCAGCATATCAGCA
ACTCGAAGAATCAAGGATCCCAGACCAGGATACGATACCTTGCCAAGGGATAGAGGT
CAGGAAGACTATATCCACCTGCCTATACAGCTGTGGTGTGTTGAAAGACCCCTGGAC
TTAAAGTATTCATCCAGTGGTTTAAAAACCCAACGAAATACATCAATAAATATGCAAC
TGCCTTCAAGAGAGACAAACCCTATTTTAATAGCTTGGAGCAAAAGGACCTGGTGGG
CTATTCATCCACAAGGGCCAGTTCTGTGCCCATCATCCCTTCAGTGGGTTTAGAGGAA
ACCTGCCTGCAAATGCCAGGGATTCTGAAGTCAAAGCATCAAATGGTGCAAAAAC T
CCTATTCAGCTGACGTTGTCAATGTGAGTATTCCAGTCAGCGATTGTCTTATAGCAGA
ACAACAAGAAGTGAAAATATTGCTAGAAACTGTCCAGGAGCAGATCCGAATTCTGACT
GATGCCAGACGGTCAGAAGACTACGAACTGGCCAGCGTAGAAACCGAGGACAGTGCA
AGCGAAAACACAGCCTTTCTCCCCCTGAGTCCACAGCCAAATCAGAACGAGAGGCGC
AATTTGTCTTAAGAAATGAAATACAAAGAGACTCTGCATTGACCAAGTGA CTTGAGAT
GTAGGAATCTGTGATTCTATGCTTTGCTCAACAGGAAAGAGAGGAAATCAAATACAA
ATTATTTATATGCATTAATTTAAGAGCATCTACTTAGAAGAAACCAAATAGTCTATCGC
CCTCATATCATAGTGTTTTTTAACAAAATATTTTTTTAAGGGAAAGAAATGTTTCAGGA
GGGATAAAGCTT

Figure 2

ATGAGTGAAGGGGCGGCCGCTGCCTCGCCACCTGGTGCCGCTTCGGCAGCCG
 CCGCCTCGGCCGAGGAGGGCACCGCGGCGGCTGCGGCGGCGGCAGCGGCGG
 GCGGGGGCCCGGACGGCGGGCGGCGAAGGGGCGGCCGAGCCCCCGGGAGT
 TACGCTGTAGCGACTGCATCGTGTGGAACCGGCAGCAGACGTGGCTGTGCGT
 GGTACCTCTGTTTCATCGGCTTCATCGGCTGGGGCTCAGCCTCATGCTTCTCA
 AATGGATCGTGGTGGGCTCCGTCAAGGAGTACGTGCCCACCGACCTAGTGGA
 CTCCAAGGGGATGGGCCAGGACCCCTTCTTCTCTCCAAGCCCAGCTCTTTCC
 CCAAGGCCATGGAGACCACCACCTACCCTTCCACCACGTCCCCCGCCACC
 CCCTCCGCCGGGGGTGCCGCTCCTCCAGGACGCCCAACCGGATTAGCACTCG
 CCTGACCACCATCACGCGGGCGCCACTCGCTTCCCCGGGCACCGGGTGCCCA
 TCCGGGCCAGCCCGCGCTCCACCACAGCACGGAACACTGCGGCCCTGCGAC
 GGTCCCGTCCACCACGGCCCCGTTCTTCAGTAGCAGCACGCTGGGCTCCCGAC
 CCCCCGTGCCAGGAACCTCCAAGTACCCAGGCAATGCCCTCCTGGCCTACTGCG
 GCATACGCTACCTCCTCCTACCTTCACGATTCTACTCCCTCCTGGACCCTGTCT
 CCCTTTCAGGATGCTGCCTCCTCTTCTTCTTCTTCTTCTCCTCCGCTACCACC
 ACCACACCAGAACTAGCACCCAGCCCCAAATTTTCATACGACGACATATTCCAC
 AGAGCGATCCGAGCACTTCAAACCCTGCCGAGACAAGGACCTTGCATACTGTC
 TCAATGATGGCGAGTGCTTTGTGATCGAAACCCTGACCGGATCCCATAAACAC
 TGTCGGTGCAAAGAAGGCTACCAAGGAGTCCGTTGTGATCAATTTCTGCCGAA
 AACTGATTCCATCTTATCGGATCCAACAGACCACTTGGGGATTGAATTCATGG
 AGAGTGAAGAAGTTTATCAAAGGCAGGTGCTGTCAATTTTCATGTATCATCTTT
 GGAATTGTCATCGTGGGCATGTTCTGTGCAGCATTCTACTTCAAAGCAAGAA
 ACAAGCTAAACAAATCCAAGAGCAGCTGAAAGTGCCACAAAATGGTAAAAGC
 TACAGTCTCAAAGCATCCAGCACAATGGCAAAGTCAGAGAACTTGGTGAAGA
 GCCATGTCCAGCTGCAAAATTATTCAAAGGTGGAAAGGCATCCTGTGACTGCA
 TTGGAGAAAATGATGGAGTCAAGTTTTGTGCGCCCCCAGTCATTCCCTGAGGT
 CCCTTCTCCTGACAGAGGAAGCCAGTCTGTCAAACACCACAGGAGTCTATCCT
 CTTGCTGCAGCCCAGGGCAAAGAAGTGGCATGCTCCATAGGAATGCCTTCAG
 AAGGACACCCCCGTCACCCCGAAGTAGGCTAGGTGGAATTGTGGGACCAGCA
 TATCAGCAACTCGAAGAATCAAGGATCCCAGACCAGGATACGATACCTTGCCA
 AGGGTATTCATCCAGTGGTTTAAAAACCCAACGAAATACATCAATAAATATGC
 AACTGCCTTCAAGAGAGACAAACCCCTATTTTAATAGCTTGGAGCAAAAGGAC
 CTGGTGGGCTATTCATCCACAAGGGCCAGTTCTGTGCCCATCATCCCTTCAGT
 GGGTTTAGAGGAAACCTGCCTGCAAATGCCAGGGATTTCTGAAGTCAAAAGC
 ATCAAATGGTGCAAAAACCTCCTATTTCAGCTGACGTTGTCAATGTGAGTATTCC
 AGTCAGCGATTGTCTTATAGCAGAACAACAAGAAGTGAAAATATTGCTAGAA
 ACTGTCCAGGAGCAGATCCGAATTCTGACTGATGCCAGACGGTCAGAAGACT
 ACGAACTGGCCAGCGTAGAAACCGAGGACAGTGCAAGTGAAAACACAGCCTT
 TCTCCCCCTGAGTCCCACAGCCAAATCAGAACGAGAGGCGCAATTTGTCTTAA
 GAAATGAAATACAAAGAGACTCTGCATTGACCAAGTGA

Figure 3

hNRG3B1 1 MSEGAAASPPGAASAAAAAEEGTAAAAAAGGGPDGGGEGAAEPPR
mNRG3 1 MSEGAAASPPGAASAAAAAEEGTAAAAAAGGGPDGGGEGAAEPPR

hNRG3B1 51 ELRCSDCIVWNRQQTWLCVVPLFIGFIGLGLSLMLLKWIVVGSVKEYVPT
mNRG3 51 ELRCSDCIVWNRQQTWLCVVPLFIGFIGLGLSLMLLKWIVVGSVKEYVPT

hNRG3B1 101 PLVDSKGMGQDPFFLSKPSSFPAKAMETTTTTTTSTTSPATPSAGGAASSRT
mNRG3 101 PLVDSKGMGQDPFFLSKPSSFPAKAMETTTTTTTSTTSPATPSAGGAASSRT

hNRG3B1 151 PNRISTRLTITRAPTRFPGHRVPIRASPRSTTARNTAAPATVPSTTAPF
mNRG3 151 PNRISTRLTITRAPTRFPGHRVPIRASPRSTTARNTAAPATVLSSTTAPF

hNRG3B1 201 FSSSTLGSRPPVPGT PSTQAMPSWPTAAYATSSYLHDSTPSWTLSPFQD-
mNRG3 201 FSSSTPGSRPPMPGA PSTQAMPSWPTAAYATSSYLHDSTPSWTLSPFQDA

hNRG3B1 250 -AASSSSSSSSSA TTTTPETSTSPKFHTTYS TERSEHFKEPDRDKOLAYC
mNRG3 251 AAASSSSPSSTS TTTTPETSTSPKFHTTYS TERSEHFKEPDRDKOLAYC

hNRG3B1 299 LNDGEFVIEETLTGSHKHDRKEGYQGVREDOFLPKTDSILSDPTDHLGI
mNRG3 301 LNDGEFVIEETLTGSHKHDRKEGYQGVREDOFLPKTDSILSDPTDHLGI

hNRG3B1 349 EFMESEEVYQROVLSISCIIFGIVIVGMFCAAFYFKSKKQAKQIOEQLKV
mNRG3 351 EFMESEDEVYQROVLSISCIIFGIVIVGMFCAAFYFKSKKQAKQIOEHLKE

hNRG3B1 399 PONGKSYSLKASSTMAKSENIVKSHVQLQNYSKVERHPVTALEKMMESSF
mNRG3 401 SONGKNYSLKASST--KSESLMKSHVHLQNYSKADRHHPVTALEKIMESSF

hNRG3B1 449 VGPOSFPEVPSPDRGSQSVKHHRSLSSCCSPGORSGLHRNAFRRITPPSP
mNRG3 449 SAPOSFPEVTSPDRGSQPIKHH.....SPGORSGLHRNTERRAPPSP

hNRG3B1 499 RSRLGGIVGPAYQOLEESRIPDQDTIPCOGLEVRKTISHLPIQLWCVERP
mNRG3 492 RSRLGGIVGPAYQOLEESRIPDQDTIPCOGLEVRKTISHLPIQLWCVERP

hNRG3B1 549 LDKYSSSGLKFORNTSINMQLPSRETNPYFNSLEQKDLVGYSSTRASSV
mNRG3 542 LDKYVSNBLRTOONASINMQLPSRETNPYFNSLEQKDLVGYSSTRASSV

hNRG3B1 599 PIIPSVGLEETCLMPGISIVKSIKWCKNSYSADVNVVSIIPVSDCLIAEQ
mNRG3 592 PIIPSMGLEETCLMPGISIVKSIKWCKNSYSADVNVASMPVSDCVIEEQ

hNRG3B1 649 DEVKILLETVOEQIRILTDARRSEDYELASVETEDSASENTAFLPLSPTA
mNRG3 642 DEVKILLETVOEQIRILTDARRSEDFELASMETEDSASENTAFLPLSPTA

hNRG3B1 699 KSEREAQFVLARNEIORDSAITK
mNRG3 692 KSEREAQFVLARNEIORDSAITK

Figure 4A

HNRG3B1 1 MSEGAAAASPPGAASAAAASAEEGTAAAAAAAAGGGPDGGGEGAAEPPR
 HNRG3B2 1 MSEGAAAASPPGAASAAAASAEEGTAAAAAAAAGGGPDGGGEGAAEPPR

HNRG3B1 51 ELRCSDCIVWNRQOTWLCVVPLFIGFIGLGLSLMLLKWIVVGSVKEYVPT
 HNRG3B2 51 ELRCSDCIVWNRQOTWLCVVPLFIGFIGLGLSLMLLKWIVVGSVKEYVPT

HNRG3B1 101 DLVDSKGMGQDPFFLSKPSSFPKAMETTTTTTTSTTSPATPSAGGAASSRT
 HNRG3B2 101 DLVDSKGMGQDPFFLSKPSSFPKAMETTTTTTTSTTSPATPSAGGAASSRT

HNRG3B1 151 PNRISTRLLTITRAPTRFPGHRVPIRASPRSTTARNTAAPATVPSTTAPF
 HNRG3B2 151 PNRISTRLLTITRAPTRFPGHRVPIRASPRSTTARNTAAPATVPSTTAPF

HNRG3B1 201 FSSSTLGSRPPVPGTPTOAMPSPWPTAAYATSSYLHDSTPSWTLSPFQDA
 HNRG3B2 201 FSSSTLGSRPPVPGTPTOAMPSPWPTAAYATSSYLHDSTPSWTLSPFQDA

HNRG3B1 251 ASSSSSSSSSATTTTPETSTSPKFHTTYSSTERSEMFKPCRDKDLAYCLN
 HNRG3B2 251 ASSSSSSSSSATTTTPETSTSPKFHTTYSSTERSEMFKPCRDKDLAYCLN

HNRG3B1 301 DGE CFVIETLTGSHKHCRCKEGYQGVRCDOFLPKTDSILSDPTDHLGIEF
 HNRG3B2 301 DGE CFVIETLTGSHKHCRCKEGYQGVRCDOFLPKTDSILSDPTDHLGIEF

HNRG3B1 351 MESEEVYOROVLSISCIIFGIVIVGMFCAAFYFKSKKOAKOIQEOLKVPO
 HNRG3B2 351 MESEEVYOROVLSISCIIFGIVIVGMFCAAFYFKSKKOAKOIQEOLKVPO

HNRG3B1 401 NGKSYSLKASSTMAKSENLYKSHVOLQNYSKVERHPVTALEKMMESSFVG
 HNRG3B2 401 NGKSYSLKASSTMAKSENLYKSHVOLQNYSKVERHPVTALEKMMESSFVG

HNRG3B1 451 POSFPEVPSPDRGSOSVKHHRSLSSCCSPGORSGLHRNAFRRTPPSPRS
 HNRG3B2 451 POSFPEVPSPDRGSOSVKHHRSLSSCCSPGORSGLHRNAFRRTPPSPRS

HNRG3B1 501 RLGGIVGPAYOOLESRIPODDTIPCOGIEV'R.KTISHLP IOLWCVERPLD
 HNRG3B2 501 RLGGIVGPAYOOLESRIPODDTIPCOG.....

HNRG3B1 551 LK YSSSGLKTORNTSINMQLPSRETNPFYFNSLEOKDLVGYSSSTRASSVPI
 HNRG3B2 529 - - YSSSGLKTORNTSINMQLPSRETNPFYFNSLEOKDLVGYSSSTRASSVPI

HNRG3B1 601 IPSVGLREETCLOMPGISSEVKS IKWCKNSYSADVNVSI PVSDCLIAEQOE
 HNRG3B2 577 IPSVGLREETCLOMPGISSEVKS IKWCKNSYSADVNVSI PVSDCLIAEQOE

HNRG3B1 651 VKILLETVOEOIRILTDARRSEDYELASVETEDSASENTAFLPLSPTAKS
 HNRG3B2 627 VKILLETVOEOIRILTDARRSEDYELASVETEDSASENTAFLPLSPTAKS

HNRG3B1 701 EREAOFVLRNEIQRDSALTK
 HNRG3B2 677 EREAOFVLRNEIQRDSALTK

Figure 4B

hNRG3.egf

cARIA.egf

hAR.egf

hBTC.egf

hEGF.egf

hHB-EGF.egf

hNRGα.egf

hNRGβ.egf

hTGFA.egf

mEPR.egf

288	H	F	K	P	C	R	D	K	D	L	A	Y	C	L	N	D	G	E	C	F	V	I	E	T	L	T	G	S	H	K	H	-	C	R	C	K	E	G	Y	Q	G	V	R	C	-	D	Q	F	L	
137	H	L	T	K	C	D	I	K	Q	K	A	F	C	V	N	G	G	E	C	Y	M	V	K	D	L	P	N	P	P	R	Y	L	-	C	R	C	P	N	E	F	T	G	D	R	C	-	Q	N	Y	V
142	K	K	N	P	C	N	A	E	F	Q	N	F	C	I	H	-	G	E	C	K	Y	I	E	H	L	E	A	V	T	-	-	-	C	K	C	Q	Q	E	Y	F	G	E	R	C	G	E	K	S	M	
65	H	F	S	R	C	P	K	Q	Y	K	H	Y	C	I	K	-	G	R	C	R	F	V	A	E	Q	T	P	S	-	-	-	C	V	C	D	E	G	Y	I	G	A	R	C	E	R	V	D	L		
972	S	D	S	E	C	P	L	S	H	D	G	Y	C	L	H	D	G	V	C	M	Y	I	E	A	L	D	K	Y	A	-	-	-	C	N	C	V	V	G	Y	I	G	E	R	C	Q	Y	R	D	L	
104	K	R	D	P	C	L	R	K	Y	K	D	F	C	I	H	-	G	E	C	K	Y	V	K	E	L	R	A	P	S	-	-	-	C	I	C	H	P	G	Y	H	G	E	R	C	H	G	L	S	L	
178	H	L	V	K	C	A	E	K	E	K	T	F	C	V	N	G	G	E	C	F	M	V	K	D	L	S	N	P	S	R	Y	L	-	C	K	C	P	N	E	F	T	G	A	R	C	T	E	N	Y	P
178	H	L	V	K	C	A	E	K	E	K	T	F	C	V	N	G	G	E	C	F	M	V	K	D	L	S	N	P	S	R	Y	L	-	C	K	C	P	N	E	F	T	G	D	R	C	-	Q	N	Y	V
43	H	F	N	D	C	P	D	S	H	T	Q	E	C	F	H	-	G	T	C	R	F	L	V	Q	E	D	K	P	A	-	-	-	C	V	C	H	S	G	Y	V	G	A	R	C	E	H	A	D	L	
57	Q	I	T	K	C	S	S	D	M	D	G	Y	C	L	H	-	G	Q	C	I	Y	L	V	D	M	R	E	K	F	-	-	-	C	R	C	E	V	G	Y	T	G	L	R	C	E	H	F	F	L	

Figure 5

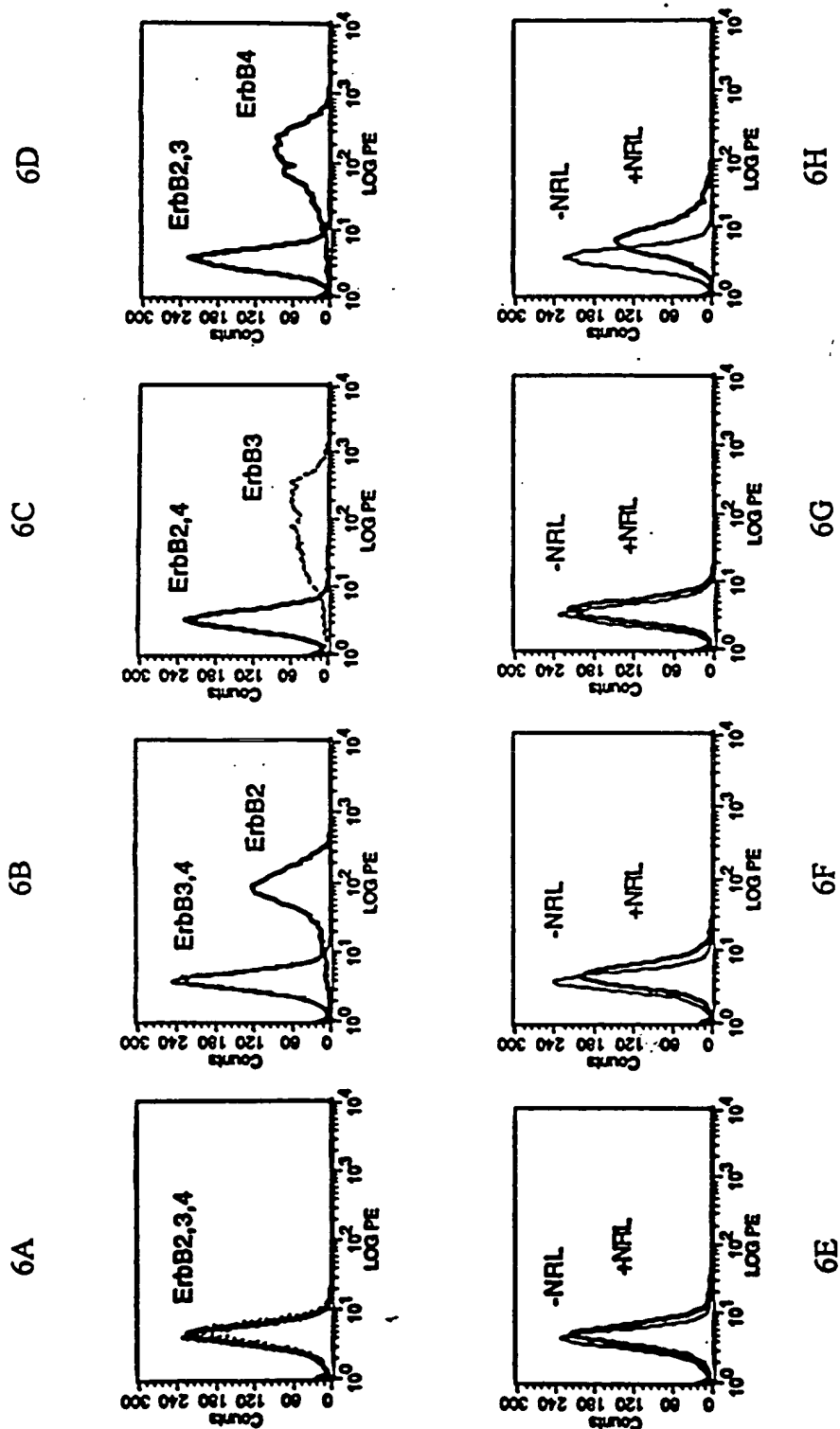


Figure 6A - 6H

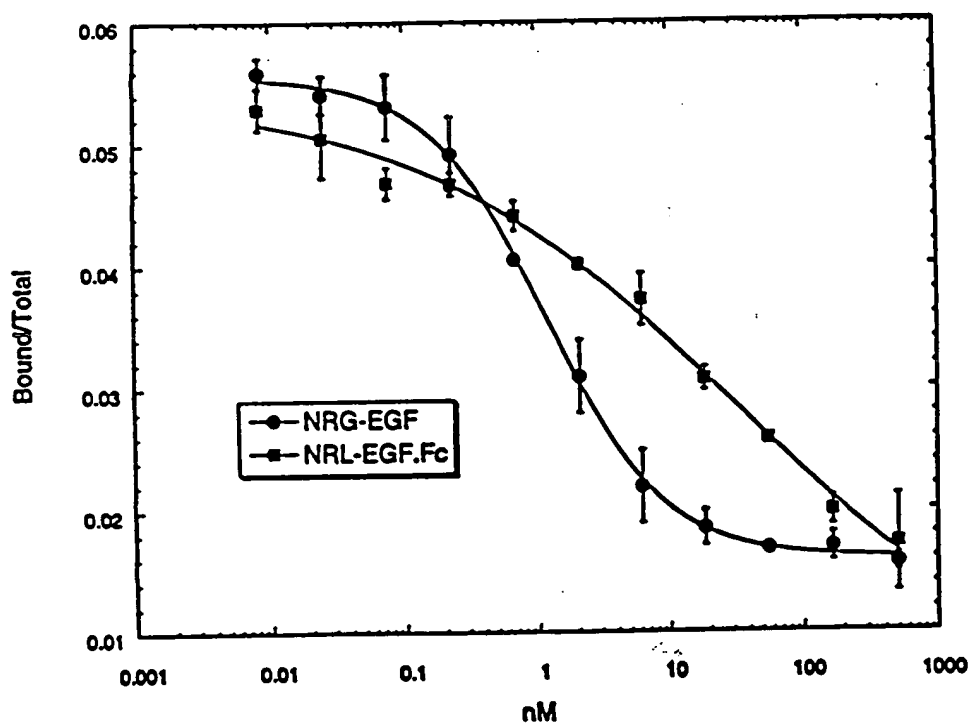


Figure 7